

# USER MANUAL

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**NVP2415 / 2417 / 2419**

**15" / 17" / 19" LCD**

**2U Rackmount TFT LCD Keyboard Drawer**

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## 2. Introduction

NVP Series is a combination of keyboard, mouse and monitor into a drawer, with features such as flip-up design, adjustable brackets, built in LCD OSD to provide effective assistant for an administrator to control PC system.

NVP Series provides cost effective for your limited IT budget over using CRT and rack mounting. Also, it will be space saving for your compact environment rack and effective assistant for an administrator to control PC system.

## 3. Features

- Unique mechanical design to maximize rack mountable space
- Adjustable mounting brackets from 390 to 790mm (front to rear 19" mounts)
- May be fitted into 800mm deep rack by the use of extended brackets on request
- Three models to choose from 15", 17" or 19" LCD Panel.
- Two keyboard selections supporting multiple languages
- Front-access lock for security.
- Build-in slide rail and mounts easily in any 19" cabinet
- Built in On Screen Display controlled by integral membrane switches.
- Lightweight Aluminium construction – with black anodize finish

### Disclaimer

This information is subject to change without notice. The producer of this manual accepts no responsibility for damage or claims, resulting from misuse or misinterpretation

## 4. Package Contents

LCD Monitor	1 Piece
User Manual	1 Piece
DC Power Adapter	1 Piece
Power Cord	1 Piece
Mounting Bracket	1 Pair
Key for front access lock	2 Pieces
Fasteners	4 Pieces
ND-6 3-in-1 KVM cable	1 Pieces

### Before Unpacking

It is very important to locate the LCD Keyboard Drawer in a suitable environment.

- The surface for placing and fixing the LCD Keyboard Drawer should be stable and level or mounted into a suitable cabinet.
- Make sure the place has good ventilation, is out of direct sunlight, away from sources of excessive dust, dirt, heat, water, moisture and vibration.
- Convenience for connecting the LCD Keyboard Drawer to the related facilities should be well considers too.

### Unpacking

The LCD Keyboard Drawer comes with the standard parts shown as above. Check and make sure they are included and in good condition. If anything is missing, or damage, contact the supplier immediately.

## 5. Optional Accessories

<b>SUN-31</b>	SUN / iMAC USB to PS/2 adapter
	<b>Video Input</b>
	12V / 24V / 48V DC Power Supply
	15" - 19" Touch Screen
	12V / 24V / 48V DC Power Supply

## 6. Peripheral Products

<b>Model</b>	<b>Description</b>
NV-401	4-Port PS/2 KVM switch
NV-801	8-Port PS/2 KVM switch
NV-1601	16-Port PS/2 KVM switch
NV-101	CAT.5 PS/2 KVM extender

## 7. Important Safeguards

Please read all of these instructions carefully before you use the device.  
Save this manual for future reference.

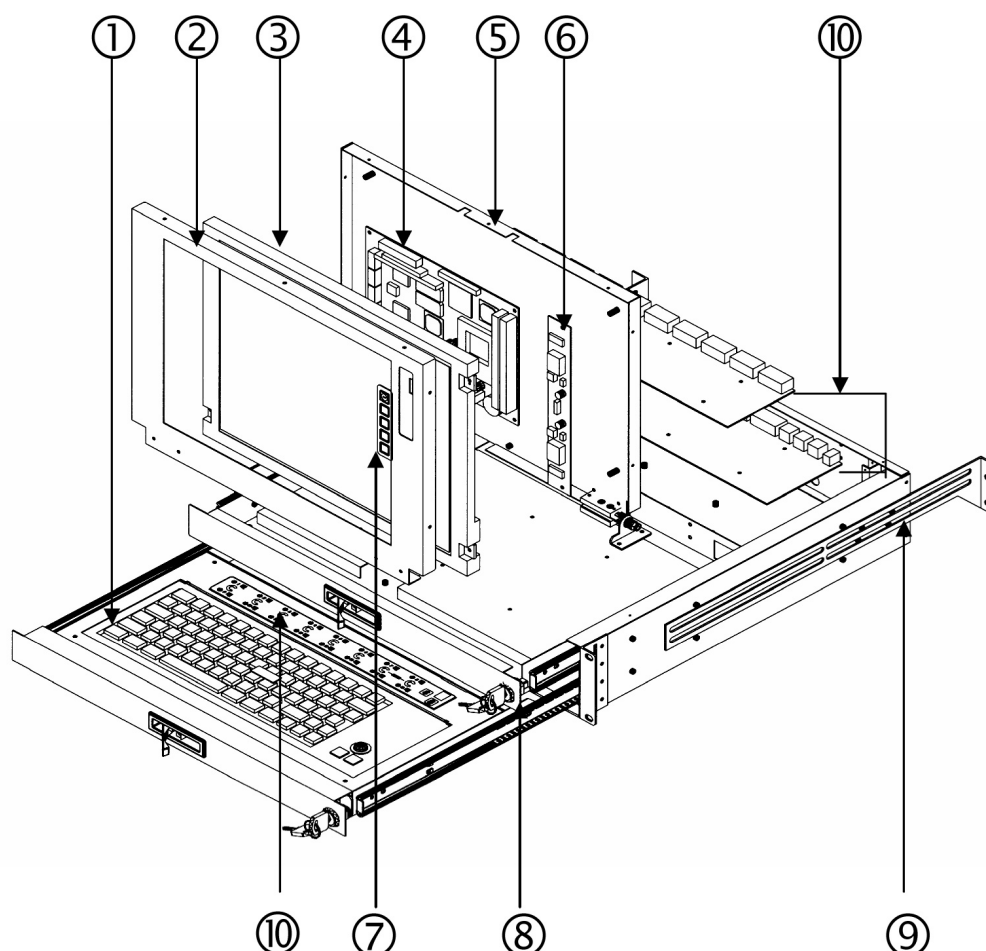
- Unplug the LCD Keyboard Drawer from the power outlet before cleaning.
- Do not spray liquid cleaners or aerosol directly on the device. Wet a cloth with a neutral detergent (e.g. clean water) and squeeze it tight, then clean the screen slightly with it.
- Do not expose the LCD Keyboard Drawer directly to rain, water, moisture or sunlight.
- Avoid pressure on the LCD screen to prevent permanent damage to the display.
- Do not attempt to service the device yourself. Improper operation may void your warranty. Refer all servicing to qualified service personnel.
- Safe storage environment of the LCD Keyboard Drawer is ranging between  $-20^{\circ}\text{C}$  and  $60^{\circ}\text{C}$ . Permanent damage could occur if the LCD Keyboard Drawer is stored outside the safe range.
- Unplug the LCD Keyboard Drawer immediately and call qualified service personnel under the following conditions:
  1. The VGA signal cord is frayed or damaged.
  2. If the monitor has been exposed to rain, liquid or water.
  3. If the monitor has been dropped or the casing has been damaged.

### What the warranty does not cover

1. Any product, on which the serial number has been defaced, modified or removed.
2. Damage, deterioration or malfunction resulting from:
  - a) Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
  - b) Repair or attempted repair by anyone not authorized by us.
  - c) Any damage of the product due to shipment.
  - d) Removal or installation of the product.
  - e) Causes external to the product, such as electric power fluctuation or failure.
  - f) Use of supplies or parts not meeting our specifications.
  - g) Normal wear and tear.
  - h) Any other causes which does not relate to a product defect.
3. Removal, installation, and set-up service charges.

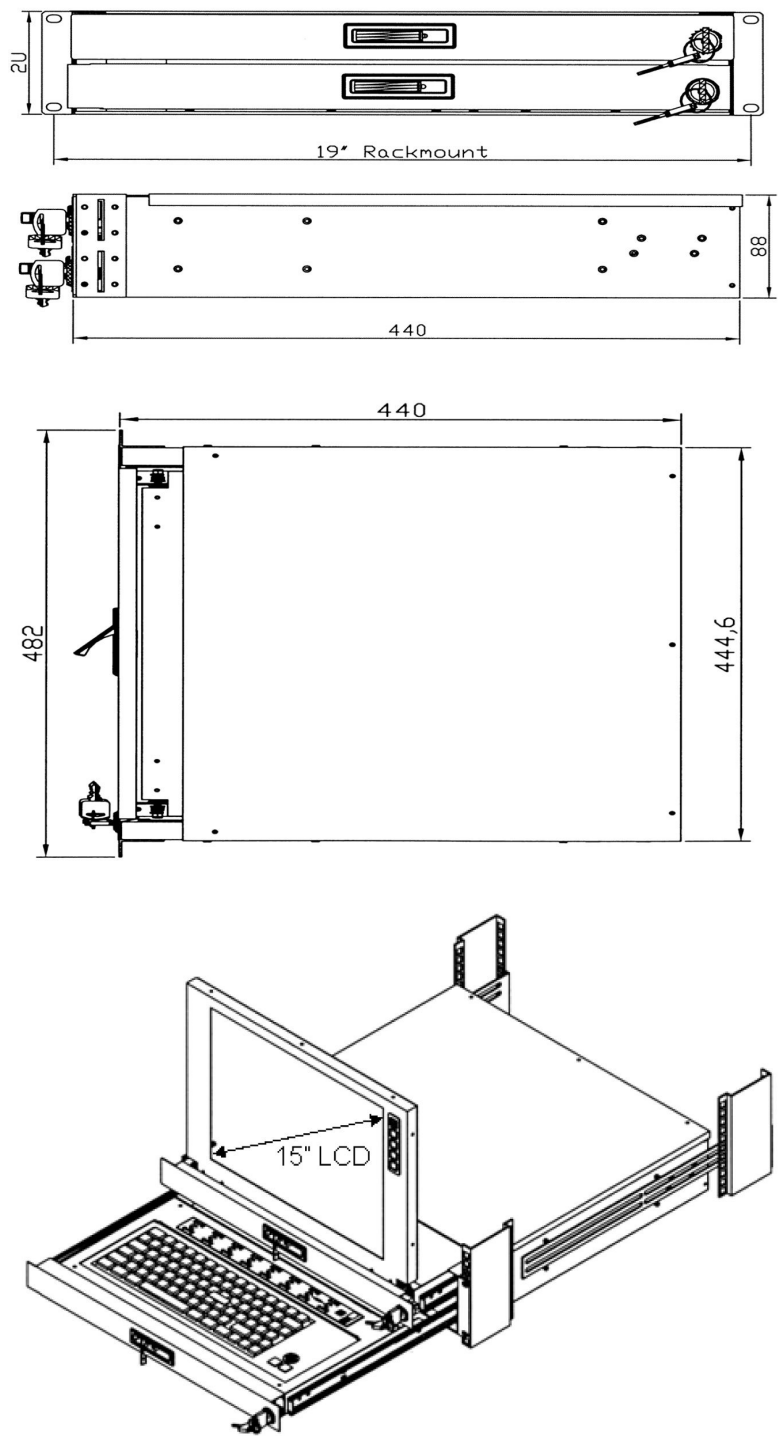
## 8. Structure Diagram

1. PS/2 keyboard
2. Aluminium front panel
3. Class A active matrix TFT LCD panel
4. Analog to digital signal converter board
5. Rear metal case
6. LCD inverter
7. LCD membrane
8. Ball bearing telescopic slides with stopper
9. Adjustable mounting bracket
10. Optional KVM switch



9. Dimensions Diagram

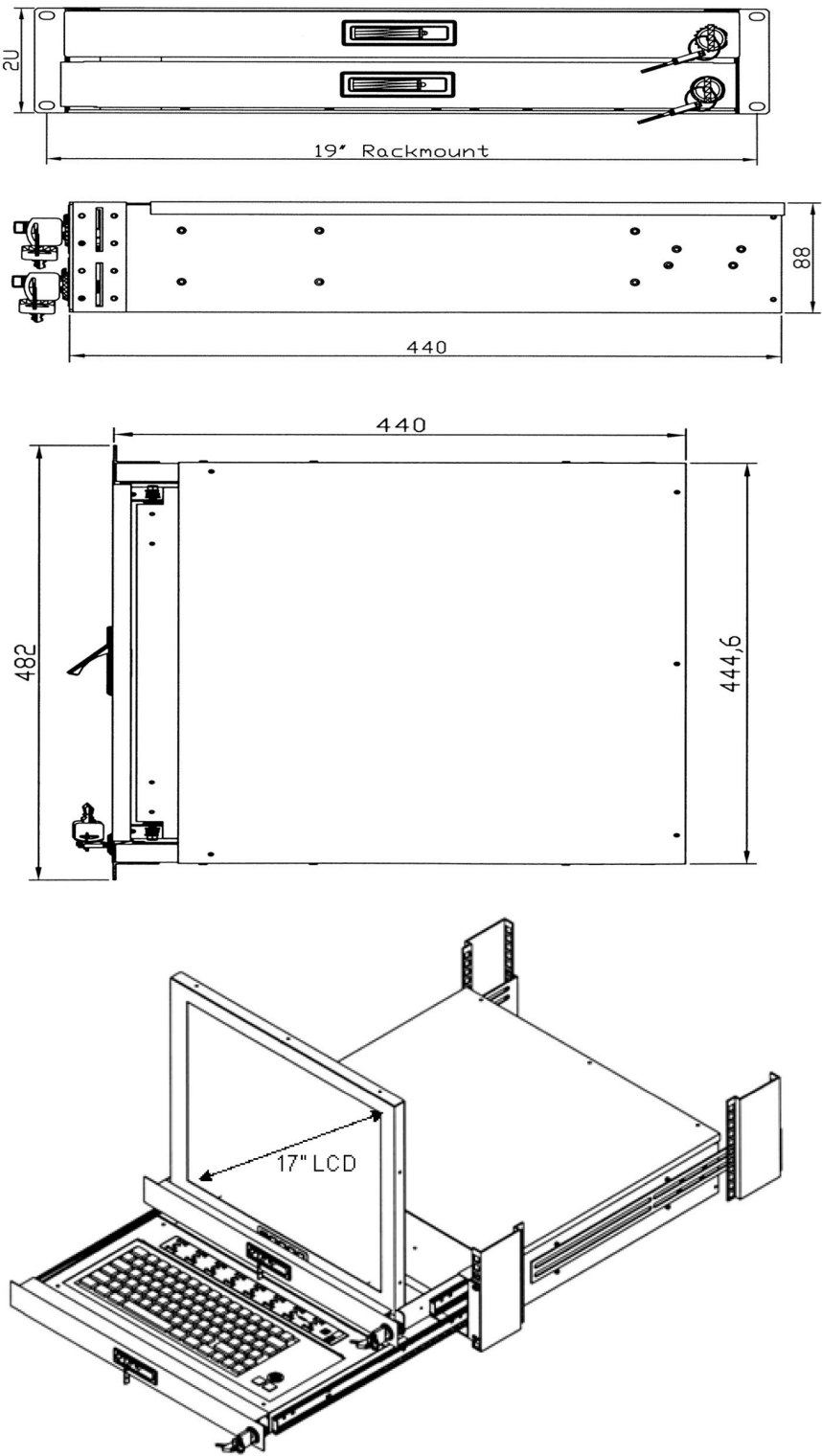
NVP2415 2U 15" LCD Keyboard Drawer





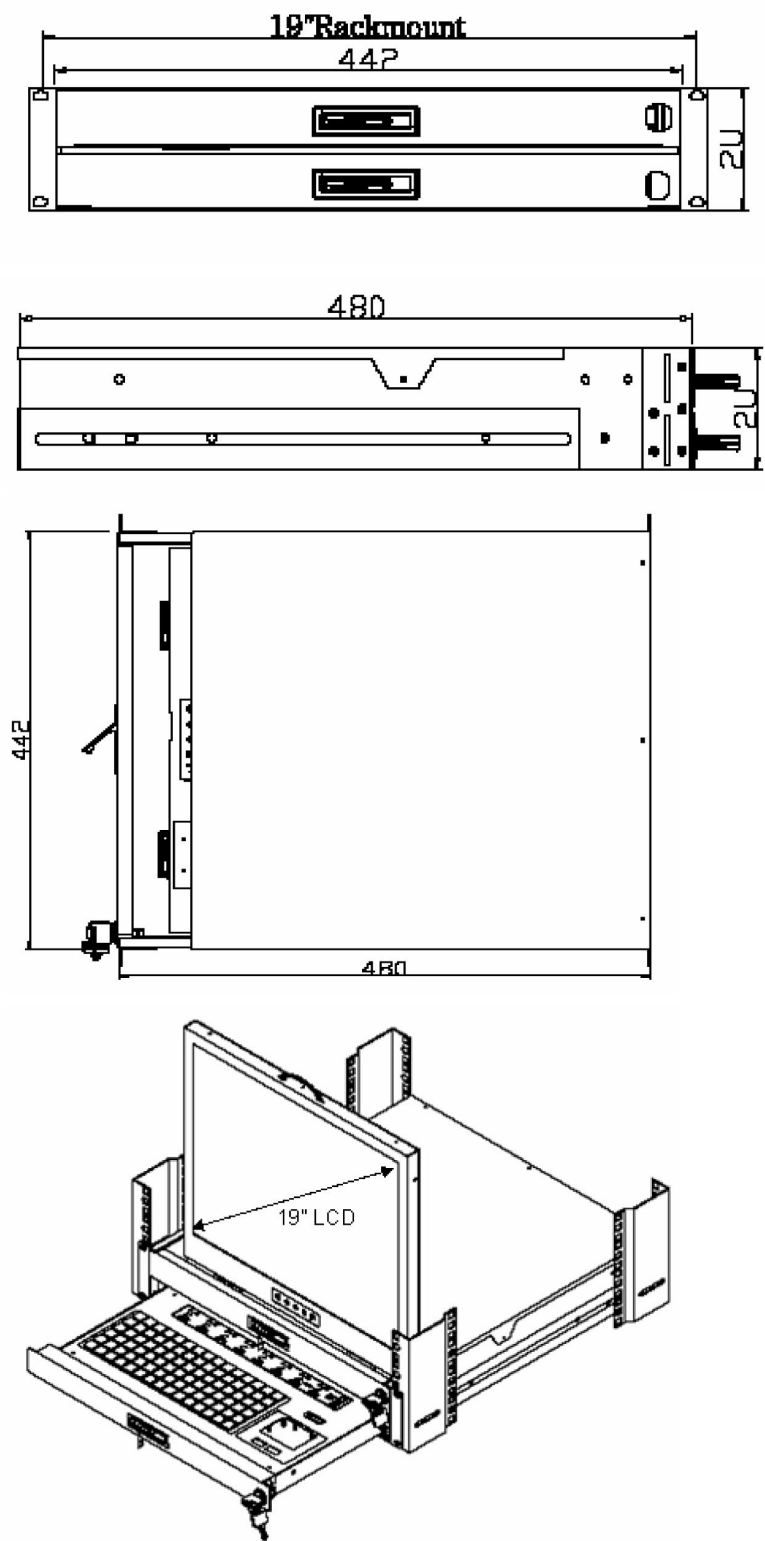
9. Dimensions Diagram

NVP2417 2U 17" LCD Keyboard Drawer



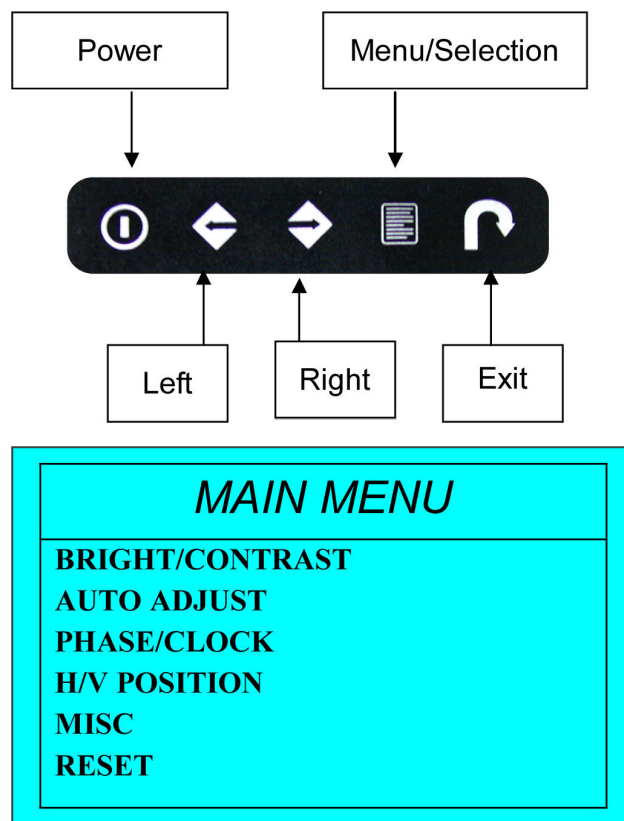
9. Dimensions Diagram

NVP2419 2U 19" LCD Keyboard Drawer



## 10. LCD OSD Menu Operation

### LCD Membrane diagram



### Main Menu

#### Bright / Contrast

- To enter into the Bright, Black level & Contrast sub-menu

#### Auto Adjust

- To perform automatic optimisations of all functions
- An " Adjusting" message is displayed during the process

#### Phase / Clock

- To enter into the phase & clock sub menu

#### H/V Position

- To enter into the H/VPosition sub-menu

#### MISC

- To enter into the MISC sub-menu


#### Reset

- Reset to the default factory settings


## 10. LCD OSD Menu Operation

### Bright / Contrast

#### 1. Brightness


- To perform brightness adjustment of the input RGB signal
- Use the Left & Right button to adjust and button  to "Brightness" 2.

#### 2. Contrast


- To adjust the contrast level of the input signal
- Use the Left & Right button to adjust and button  to "Contrast"

### Phase / Clock

#### 1. Phase


- To adjust input video sampling clock's phase
- Use the Left & Right button to adjust and button  to "Phase"

#### 2. Clock


- To adjust input video sampling clock
- Use the Left & Right button to adjust and button  to "Clock"

### H/V Position

#### 1. H.Position

- To adjust the horizontal size of the frame
- Use the Left & Right button to adjust and button  to "H.position".

#### 2. V.Position

- To adjust the vertical position of the frame
- Use the Left & Right button to adjust and button  to "V.position".

## 10. LCD OSD Menu Operation

### MISC

#### 1. Information

- The first header row shows the current resolution setup
- The second header row shows the horizontal frequency of the current input signal
- The third header row shows the vertical frequency of the current input signal

#### 2. OSD Timer

- To modify the duration of the OSD time-out

#### 3. Color

##### a) 5500K

- Select Colour Temp at 5500K

##### b) 6500K

- Select Colour Temp at 6500K

##### c) 9500K

- Select Colour Temp at 9500K

##### d) User

- Change Colour Temp by manual

#### 4. Language

- To select the language of OSD menu 7 Languages :
  - (1) English
  - (2) Japanese (日本語)
  - (3) Chinese (中文)
  - (4) German
  - (5) Francais
  - (6) Espanol
  - (7) Italiano

# 11. Resolution Settings

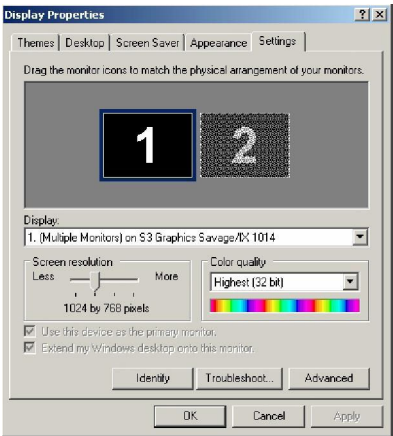
**For Microsoft Windows**

Step 1 – Press right click on the desktop

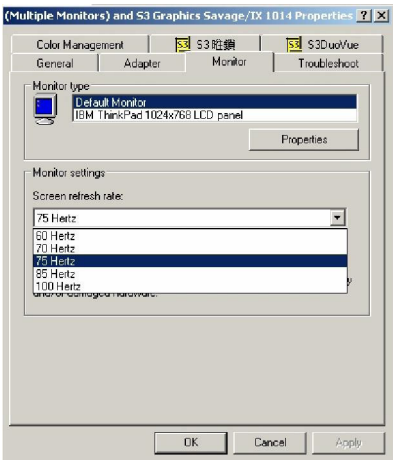
Step 2 – Choose “Properties”



Step 3 – Change the “Screen Resolution”



Step 4 – Change the “Screen refresh rate”



## 11. Resolution Settings

### For SUN Servers

- Resolution configuration procedures should be run by qualified SUN server administrator
- Sun Servers are using resolution at 1152 x 900 x 76Hz.
- Supported resolution mode for 15" LCD:
- 1024 x 768 x 70/75Hz
- Supported resolution mode for 17" LCD:
- 1280 x 1024 x 75Hz
- You need to change the Sun Server resolution before you connect to LCD Display.
- Please do the following procedures to change the resolution settings :
  1. As root:  
You may find the following comment `7user/sbin/m64config`".
  2. To view current resolution:  
Type `7user/sbin/m64config - prconf`.
  3. To change to 1024x768 @ 70MHz:  
Type `7user/sbin/m64config - res 1024x768x70 now`".
  4. The screen will be rubbish.
  5. Then type "pkill Xsun".  
And Type "pkill Xsession" to restart the Xsession.


**Note :** Remember to RESTART the server after these processes.

- Under Common Desktop Environment (CDE).
- To change the OpenBoot resolution, you can type the following command in OK prompt.
  1. In OK prompt, type "`setenv output-device screen:r1024x768x70`".
  2. Type "`printenv`" to confirm the resolution has been changed to 1024x768x70Hz.
  3. Then type, "`reset`" to restart the system.

**Note :** Remember to RESTART the server after these processes.

## 12. Technical Specification

### LCD

Item	Specification		
LCD Screen Manufacturer			
LCD Origin	South Korea		
Panel	15" TFT	17" TFT	19" TFT
Resolution	1,024 x 768	1,280 x 1,024	1,280 x 1,024
Brightness	300 cd/m2	350 cd/m2	500 cd/m2
Color	16.2 Million	16.2 Million	16.7 Million
Contrast Ratio	450:01:00	350:01:00	500:01:00
Viewing Angle	140° x 125°	140° x 130°	170° x 170°
Display Area	304 x 228 mm	337 x 270 mm	376 x 301 mm
Pixel Pitch	0.297 mm	0.264 mm	0.294 mm
Response Time (Tr)	5ms		15ms
Response Time (Tf)	20ms		10ms
Back Light	4 x Cold Cathode Fluorescent Tube		
Horizontal Sync.	48.4 kHz	64 ~ 80 kHz	64 kHz
Vertical Sync.	65 MHz	60 ~ 75 Hz	60 Hz
Input Signal	Analog RGB 0.7Vp-p		
Power Management	VESA DPMS		
OSD Control	Brightness, Contract, Colour, Clock		
	H.Position, V.Position, Phase, Scaling		
	Auto Config., Input Select, Multi-Window		
	Clear EEPROM, OSD adjust		
Power Input	12V DC Adapter		
Video Input	15-pin D-Sub Connector		
Dimension	NVP2415 / 2417 : 43.9W x 8.8H x 44D cm		
	NVP2419 : 43.9W x 8.8H x 48D cm		
Weight	NVP2415 : 11kg / 2417 : 12.5kg / 2419 : 14kg		

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